Clinical reviews

Our panel of GPs review recent research papers in their specialist areas that may influence the way you practise

Reviewers

Addiction
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Cardiovascular disease
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GP Watercress Medical, Medstead
GPwSI Cardiology, Southampton

Diabetes
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GP Suffolk and hospital practitioner in diabetic medicine

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Mental health
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Dr Chris Barclay
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Paediatrics
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Sexual health
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GP with an interest in sexual health
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Smoking cessation
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Urology
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Cardiovascular disease

TAVI effective in elderly patients with severe aortic stenosis

Transcatheter aortic valve implantation (TAVI) had similar outcomes to surgical aortic valve replacement (SAVR) in high-risk patients with severe aortic stenosis, in a study from Switzerland. Both procedures were much more effective than medical therapy.

Patients with severe aortic stenosis were consecutively enrolled into a prospective single centre registry. There were 442 patients, median age 83 years. A total of 78 patients were allocated to medical treatment, 107 to SAVR, and 257 to TAVI.

All cause mortality in the medical therapy group was 81% compared with 37% in the surgical group and 43% in the transcatheter group after a median duration of follow-up of 3.9 years ($P < 0.001$).

The risk of the composite outcome of all cause mortality, major stroke and MI, at five years' follow-up, was significantly lower in patients undergoing SAVR or TAVI compared with medical therapy.

The difference was driven by all cause mortality.

- SAVR vs medical therapy: hazard ratio (HR) 0.31 (95% CI:0.21-0.46)
- TAVI vs medical therapy: HR 0.34 (95% CI:0.25-0.46).
- There was no significant difference for the composite outcome between SAVR and TAVI; HR 0.88 (95% CI:0.62-1.25).

The study also identified several independent predictors of mortality such as BMI ≤ 20, diabetes, peripheral vascular disease, atrial fibrillation and pulmonary hypertension.

The authors conclude that among high-risk patients with severe aortic stenosis, long-term clinical outcome was comparable between patients allocated to SAVR or TAVI.

In contrast, patients managed with medical therapy alone had a very poor prognosis.

As the population ages the incidence of severe aortic stenosis will increase and decisions will have to be made regarding intervention in such patients who are often frail and with multiple comorbidities.

The advent of catheter-based strategies for aortic valve replacement offers a viable and effective alternative to the traditional surgical approach in these patients.

There will always be patients who are clearly unsuitable for any form of intervention or who make an active and informed decision not to pursue invasive treatments.

However, this study shows the clear benefits of intervention. Transcatheter techniques extend this option to those traditionally considered unsuitable for surgical intervention.

DR PETER SAVILL

● **Pilgrim T, Englberger L, Rothenbuhler M et al. Long-term outcome of elderly patients with severe aortic stenosis as a function of treatment modality. *Heart* 2015;101:30-36 doi:10.1136/heartjnl-2014-306106**

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